July 1989

ISD News and Views

Table of Contents

Readers:

*As you may notice, this issue of News &
Views is extremely late. Due to
circumstances beyond our control the
newsletter is rather tardy.*

*Please accept our apology with the hopes
it will not happen again.*

ISD Gets New Mainframe Computer

Information Services Division
has purchased a new computer.
The new computer, an IBM 3090
model 200E, replaced the 3081-
K49 mainframe.

The 3090 computer is
approximately twice as fast
and double the capacity as the
3081. The old 3081 had about
30 megabytes of memory,
whereas, the new 3090 has 128
megabytes of memory with an
additional 128 megabytes of
expanded storage. The 3090
can transfer data approxi-
mately 1.5 megabytes per
second faster than the old
one.

Testing went smoothly and on
June 3, 1989 the 3081 was
unplugged!

Term Contract Status

IBM Changes - Hardware

Revised hardware Term Contracts were released June 1, 1989.
Since the release date, further review of the new IBM portable PC
has resulted in its addition to the Term Contract, as follows:

Model/FC grade		Term K	Up-grade
8573-061	PS/2 Model P70 386, 20Mhz, 60MB	$5078.70	N/A
8573-121	PS/2 Model P70 386, 20Mhz, 121MB	5474.70	N/A
FC 2716	External Storage Device Cable	65.34	69.30
FC 1755	PS/2 Internal Modem/A	296.34	314.30
FC 3192	Carrying case/leather	231.00	245.00
FC 3193	Carrying case/nylon	118.80	126.00

Due to time constraints, a full product test has not been con-
ducted on the new IBM portable. However IBM has certified to the
product's compatibility with the State's install base of hardware
and software. Agencies experiencing any problems with the new
portables are asked to contact Teri Lundberg or Ron Heilman in
the Information Center. Full product testing is expected to be
performed mid-July.

The model 70, 25 MHz machine has experienced a price decrease as
follows:

Model/FC		Term K	Up-grade
8570-A21	PS/2 Model 70, 120 MB, 25 MHz	$5936.70	5936.70

IBM Changes - Software

<u>Additional License of DOS 3.3 and DOS 4.0</u> is now available under
Term Contract. IBM is allowing the State to purchase one Add-
itional License copy of each DOS version for each fully docu-
mented DOS package purchased. The Additional License gives the
State the authority to make <u>a copy</u> of the original DOS package,
for a reduction in price. The Additional License comes with no
documentation or deliverable. Verification of authority to copy
is satisfied by the Purchase Order and paid invoice.

Due to the State's large install base of original DOS 3.3 pack-
ages, IBM has not required justification as to the number of
Additional License copies to which the State is entitled.

Additional License Term Contract prices are as follows:

Model/FC		Term K	Up-grade
8572-AAA/0648	Addit'l Lic. DOS vers 3.3	$ 70.00	N/A
8571-AAA/1423	Addit'l Lic. DOS vers 4.0	77.00	N/A

IBM Changes - Maintenance

Please note the decreases in IBM maintenance prices on certain system units in the June 1, 1989 term contract. IBM is issuing credits on the equipment experiencing the decrease, effective December 1988, where agencies had originally paid the higher rate.

Zenith Changes - Hardware

Please note that the ZA-3034-QC battery pack (page 39 of the current Term Contract), for a Zenith portable TurbosPort, is no longer available.

Maintenance Term Contract Survey

Maintenance Term Contract surveys were sent out to agency D.P. Managers. The information provided will be used to clarify the maintenance RFP which is expected to go out to vendors shortly. The Resource Management Unit wishes to thank those agencies who responded.

The tape back-up information collected will be summarized and distributed to agencies for their information.

Ordering Procedure

In an effort to help vendors resolve questions they may have on agency Term Contract orders, please remember to put the name and number of the appropriate point of contact on each order.

Eight Week Lead Time for Local Area Network Planning

Agencies wishing to install local area networks are requested to submit a written request to the Information Center. Subsequently, ISD will initiate purchase orders for acquisition of necessary equipment. ISD intends to stock replacement parts for local area networks but regrets that it is unable to stock parts for new or expansion of existing networks. This constraint means that at least eight weeks are required from the time ISD receives a request until the time an agency can expect to have network components installed in their workstations.

Please try to anticipate requirements for local area network components so that product availability problems do not negatively impact your installation schedules.
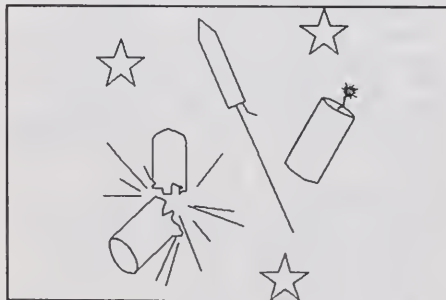
DOA Networking Policy Changes

In the December 1988 <u>News and Views</u>, the DOA Networking Policy and Guidelines were stated. As part of the LAN Guidelines, it was stated that ISD would centrally purchase and coordinate the install- ation of networking/ communication products. The following listing was provided of the primary items which ISD would purchase for agency bureaus/sections which pay Information Center support subscription fees:

•IEEE-802.5 (Token Ring) Cards
•Boot Proms for above
•Multi-station Access Units (MSAU's)
•MSAU Housings
•LAN Support Program
•Wiring for the network
•Personal Services/PC Software
•SDLC Adapter (for AT or PS/2 bus)
•COAX Adapter (for AT or PS/2 bus)
•3270 Emulation Program

<u>To clarify the earlier policy statement</u>, agency bureaus/ sections which are not Infor- mation Center subscribers, will <u>not</u> be provided with any items shown above. This in- cludes agencies which pay for connections to the statewide SNA data network, but do not pay the Information Center subscription fee. (The Infor- mation Center subscription fee varies from a minimum of $10/month/PC to a maximum of $20/month/PC, depending on services received. Contact Wendy Wheeler, 444-2973, if you have any questions on sub- scription services.)
To request the procurement of any of the above items for your subscription agency, simply provide a memo with the number of each item needed or call the Information Center (x2973) if you need assistance with your request. Requests should be forwarded to Teri Lundberg in the Information Center.

Mainframe

CICS Programming Changes

The following CICS cataloged procedure defaults will be permanently updated effective Monday, July 24, 1989 to re- flect the upgrade to CICS 1.7. If you specify any of the following parms or provide any JCL overrides specifying CICS 1.6 libraries, your JCL must be updated to reflect the new release.

PRO-CEDURE	OLD PARM	NEW PARM
DFHSACE	INDEX='CICS.R16.'	INDEX='CICS.R170.'
DFHSACET	INDEX='CICS.R16.'	INDEX='CICS.R170.'
DFHSACM	INDEX='CICS.R16.'	INDEX='CICS.R170.'
DFHSACMT	INDEX='CICS.R16.'	INDEX='CICS.R170.'
DFHSCCE	REL='R16'	REL='R170'
DFHSCCET	REL='R16'	REL='R170'
DFHPCCE	REL='R16'	REL='R170'
DFHPCCET	REL='R16'	REL='R170'
DFHSCIE	REL='R16'	REL='R170'
DFHSCIET	REL='R16'	REL='R170'
DFHPCIE	REL='R16'	REL='R170'
DFHPCIET	REL='R16'	REL='R170'
DFHSPCE	REL='R16'	REL='R170'
DFHSPCET	REL='R16'	REL='R170'
DFHPPCE	REL='R16'	REL='R170'
DFHPPCET	REL='R16'	REL='R170'

Once these changes take effect, programs compiled at release 1.6 or earlier will continue to work, but should be recompiled as soon as practical to avoid incompat- ibilities with future releases of CICS. If you have any

problems with these changes, please contact Ron Armstrong at 2905 or Don Grinsell at 2983.

Network Spy on Trial

ISD's Systech group is currently evaluating a package of software products called Netspy from Duquesne Systems that will perform network monitoring and user response time reporting functions. If we do decide to purchase it, Netspy will replace IBM's Netview Performance Monitor, which performs the same basic functions, but does not have as many options or reporting capabilities.

Netspy monitors the communication controller's Central Processing Unit, buffer utilization and response time utilization for terminals. It provides reports on these statistics in several numerical and graphical reports, in both online and batch modes.

The next version of Netspy, which will be available in July, will provide a modeling function that will allow us to more easily plan changes in the configuration of the network for major jobs such as the SRS TEAMS project we expect to see starting next year. With modeling we will be able to ask "what if" questions, such as what if we add 40 pc's to this line, or what if we upgrade this line to 9600 bps.

We started Netspy on full data collection on May 1, so we now have a full month's worth of statistics to run the sample

reports on, and to start customizing our own reports. We are now trying to verify the accuracy of the reports, after which we will be spreading the information out to owners of terminal concentrators to help them tune their end of the network. Anyone interested in receiving network statistical information should contact Tom Buchholz at 444-2860.

Microcomputer

Free Software!!

The Information Center has 19 copies of MicroSoft Windows 386 for the taking. We will run this on a lottery-basis. Call Sandi Coyle (2973) and have her put your name in a hat. The drawing will be held the last Friday in July and we will contact you on the following Monday.

MicroSoft Windows 386 is package that allows for multitasking (having more than one application running at the same time) and switching between applications easily. You can display an application in a window or full-screen.

If you have a PC with more than 640K, Windows allows you to allocate up to 640K per application until you run out of total memory.

These packages of Windows also come with seven desktop applications that make work more efficient. You can use these applications to jot down notes, write memos, schedule appointments, calculate numbers, organize files, and gather information from online

information services. You can also move and copy information from one desktop application to another.

PC-3270 Emulation Program Version 3.05

The latest maintenance release of 3270 is Version 3.05. If you would like a copy of this version, please bring two 5¼ or one 3½ diskettes to the Information Center. Before you copy the new version, make note of you current 3270 defaults. If you have any questions, call Jeanette at 444-2973.

Price Increase for WordPerfect Upgrades

Due to a pricing change from WordPerfect Corporation, Central Stores has increased the price of upgrading from WordPerfect 4.2 to WordPerfect 5.0. Prices are as follows:

	Old	New
Stand Alone	50.00	60.23
Network Server	90.00	104.03
Network Add-On	50.00	60.23

For non-subscribing agencies the cost for each package is $10.00 more. Please note that it is cheaper to purchase a new Network Add-On package. The price of a new package is just under $50.00 and to upgrade from WP 4.2 to WP 5.0 is $60.23.

WP Corp Report Inserts Pages

Because some of the features were not explained very well in the manual, WordPerfect received **many** questions on these features. Their solution: include manual pages in the Corp Report Newsletter. These pages contain detailed information on the features causing the most confusion. Those of you that receive the WPCorp Report from WordPerfect may have noticed that last few issues contained these insert pages. These inserts are already perforated and 3-hole punched to fit nicely into your WordPerfect manual.

A Mailing Label insert was in the January 1989 issue. It shows you the exact procedures for creating different types of labels (one or more across continuous and one or more across on full sheet). Forms (one of the most mysterious features in WordPerfect 5.0) was included in the April 1989 issue. It explains how to define a form to your printer and then access that form.

If you receive the Corp Report and would like to get extra copies of these insert pages you can call 801-222-5684. The Information Center is under the impression that the extra copies should be free of charge.

PFS: *Professional File 2.0*

The Information Center has currently received PFS: Professional File 2.0.

2.0 Tidbits

- Requires 512K of memory and a hard disk
- File size has increased from 4MB (29,500 records) to 8MB (59,000 records)
- Sorting for reports can be done on any field, example: mailing labels may be sorted by zip code
- Default values can be set up in forms such as MT for state abbreviation
- Formulas can be used in forms so fields can be automatically calculated
- Data formatting in the forms allows formatting of data such as hyphens in social security numbers 999-99-9999 without the user having to type them
- Data validation allows for checking for proper data was entered into a field, example: requiring the number of items sold to be greater or equal to 1
- Fields may be indexed to give quick access and a unique index will also not allow duplicates
- 1.0 files can be retrieved and converted automatically, the user will be asked if they want to convert the file before proceeding with the conversion. Once a file is converted it can not be used with 1.0.
- Menus are redone for easier use.

Free Demos

We will be giving a free demonstration in August. Check the training schedule for the date and time.

Fix those R:Base Printer Hangups

Have you ever been working with an R:base application and selected an option that causes a report to be printed, only to find that the printer is either turned off or off-line? When this happens, you usually have to cancel the print job and resubmit it. R:base doesn't have a nice way of telling you that the printer is not ready.

Don't despair! The solution is at hand. By simply adding a .COM file and an R:base command file to your R:base system, you can make R:base check the printer BEFORE you send the print job to the printer. If the printer is not ready, a message is displayed and you have the option of fixing the printer or ignoring the problem (ie. if you plan to only print to the screen). The installation into your application is very easy, however you will have to make a minor change to the application. In some rare instances, there may be some limitations imposed by R:base where this "fix" may not work. If you would like a copy of the two files, bring a disk to Brett McAlister at the Information Center. If you have any questions, you can call Brett at 444-2044.

Lotus 1-2-3 Version 3.0

Lotus 1-2-3 Version 3.0 will be available from Central Stores in the near future. Shortly thereafter (August or September), Version 2.2 will be available. This brings up the question, "Which version should I get?"

First of all, to use Ver. 3.0, your computer **MUST** meet the following specifications:

- IBM PC-AT or compatible (286 or greater)
- Hard Disk
- At least 1 Meg of Memory

If you are using OS/2 as the operating system in your computer, you will be best off with version 3.0.

Version 2.2 will run on **ANY MACHINE**. Aside from the hardware and software issues listed above, there is really only one big difference between the two versions. With version 3.0, you can look at more than one spreadsheet at a time; or you can create spreadsheets with multiple pages that use formulas that address pages as well as rows and columns. This type of usage requires a lot of memory, thus the reason for the 1 Meg minimum.

To finally answer the question posed above, if you use spreadsheets that are huge and are continually running out of memory, AND you meet the hardware requirements listed above, then version 3.0 would be your best choice. For those of you who need the complexity of multipage spreadsheets, AND you meet the hardware requirements, version 3.0 will work well for you. For the rest of you, version 2.2 will probably fill your needs very nicely.

For those of you on **networks**, there will be Networker issues of both versions (2.2 and 3.0). Converting to Lotus Networker could save you considerable money. There are complexities concerning this that requires more space than available in the newsletter, however if you are interested, please call Brett. Central Stores will charge somewhere between $115 and $120 to upgrade to Lotus version 3.0. They won't be receiving any shipments until around the middle of July. Central Stores would like you to send them a letter of intent to upgrade detailing the number of copies of version 3.0 you will need. When they start selling the upgrades, Central Stores will need your old disks and manuals in exchange.

Central Stores does not have prices for version 2.2 as yet, so we can't give you firm prices. However, we can give some recommended retail prices from Lotus.

- To upgrade from version 2.01 to 2.2 = **$150**
- To upgrade from version 2.2 to 3.0 = **$75**
- Networker version 2.2 retail: Server = **$595**; Each workstation = **$295**
- Networker version 3.0 retail: Server = **$695**; Each workstation = **$395**
- Upgrade from 2.01 single user to either 2.2 or 3.0: Networker Server = **$250**; Each workstation = **$150**

If you have any questions about Lotus version 2.2 or

3.0, Networker, or upgrading, you can contact Brett McAlister at 2973.

Freelance 3.0 Released

The Information Center staff is currently evaluating Free-lance Plus Ver. 3.0 and at this time does not have a recommendation to upgrade. The network version of Freelance 3.0 is supposed to be released by the end of the year. We hope to have a recommendation and be able to give you a firm release date in the September issue of News and Views. How-ever, the following should give you an idea of the prices and some of the new functions.

Price: $495 Retail. Upgrade from Freelance Plus version 2 is $100 Retail. If you pur-chased version 2 after September 6, the upgrade is free. Central Stores prices will be announced as soon as they are available.

You must have 3.7 Mb of hard disk space to install and you need 640 Kb of memory. It takes 508 Kb of memory to run. Therefore, you may be able to run it with DOS and the net-work software loaded, depend-ing on your configuration. You cannot run it with DOS, network software and 3270 loaded simultaneously.

Some of the new features in-clude:

· Previewing a job before printing

· 100 new Symbols and Maps

· You can link a spreadsheet file to a chart. When the spreadsheet is modified,

the chart gets updated automatically, but not vice-versa.

· It is easy to switch back and forth between the spreadsheet and the chart.

· You can import: .WK?; .WR1; .WRK; .PIC; .CHT; .DRW; .CGM; .GMF; DBASE; SYLK; TIFF; and ASCII file.

· You can export: .EPS; .CGM; .TIFF; .PIC; .GX2; HPGL; and PostScript; files.

· Four new types of charts have been added -- high-low-close, bar-line, area and table.

· New presentation features include portfolio and screen show. You can group and order up to 100 files for printing, previewing, and storing graphics.

· The screen show is like a slide show on-screen. It comes with snazzy special effects like fade, wipe, scroll and spiral.

If you have any questions con-cerning the new release, call Gale, Jeanette or Melanie at 444-2973.
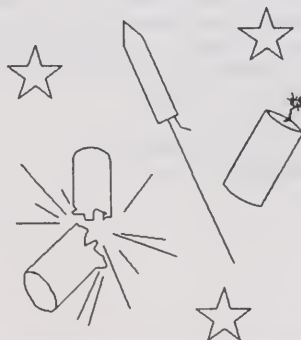
Training Information

All classes will be held in Room 25 of the Mitchell Building and there will be a limit of 12 participants per class, unless otherwise announced. Demonstrations (minis) will also be held in Room 25 but the limit will be 20 participants.

NOTE: Due to the overwhelming amount of people calling to make reservations for a class, we have found we can't keep up with them. Effective immediately, we will require the Application for Enrollment form to be sent in. We will still reserve places in a class over the telephone, but the form must be sent to us.

The cost of the classes are as follows:

Class Name	Subscriber	Non-Subscriber
Basic Terminal Skills	$ 50.00	$ 50.00
Introduction to JCL	150.00	150.00
Culprit for Programmers	250.00	250.00
Personal Services/PC	35.00	35.00
Personal Manager	25.00	35.00
Beginning Microcomputer Skills	40.00	60.00
Fundamentals of DOS	40.00	60.00
Intro. to WordPerfect 4.2	60.00	90.00
Advanced WordPerfect 4.2	60.00	90.00
Introduction to WordPerfect 5.0	60.00	90.00
Advanced WordPerfect 5.0	60.00	90.00
Conversion WordPerfect 4.2 to 5.0	40.00	60.00
Introduction to Lotus 1-2-3	60.00	90.00
Advanced Lotus 1-2-3	60.00	90.00
Intro. to Macros for Lotus 123	20.00	35.00
Intermediate Macros for Lotus 123	20.00	35.00
Advanced Macros for Lotus 1-2-3	20.00	35.00
Micro Database Concepts and Design	40.00	60.00
Beginning R:Base	80.00	120.00
Freelance	40.00	60.00
Using Novell Network	25.00	35.00
Demonstrations	FREE	FREE

Training Calendar

Data Network Classes

July 25 - 26	Architect
August 7 - 11	Introduction to JCL
Aug 28 am	Using the Novell Network
Sept 6 am	State Telephone Training
Sept 11 - 13	Culprit
Sept 22 pm	ACF2
Sept 27 pm	ACF2

Microcomputer Classes

July 17, 18, 19 am	Advanced WordPerfect 5.0
July 17, 18, 19 pm	Introduction to Lotus 1-2-3
July 20 & 21 am	Introduction to WordPerfect 5.0
July 31 & Aug 1 am	Advanced Features of Lotus 1-2-3
August 2	Beginning Microcomputer Skills
August 3 & 4 am	Introduction to Lotus 1-2-3
August 16 & 17 am	Advanced WordPerfect 5.0
August 21 am	R:Base Compiler Mini-demonstration
August 21, 22, 23 pm	Introduction to WordPerfect 5.0
August 22 am	PFS: Ver 2.0 Mini-demonstration
August 23 am	WordPerfect 5.0 Tips and Tricks
August 24 & 25 am	Advanced Lotus 1-2-3
August 28, 29, 30 pm	Introduction to WordPerfect 4.2
Sept 6, 7, 8 pm	Introduction to Lotus 1-2-3
Sept 18 & 19 am	Introduction to WordPerfect 5.0
Sept 20	Database Concepts and Design
Sept 25	Fundamentals of DOS
Sept 26 & 27 am	dB III
Sept 28 & 29	Beginning R:Base

Free Demonstrations

PFS 2.0 DEMONSTRATION: presented by Jane Black Eagle of the
Information Center.

DATE: August 22, 1989
TIME: 8:30 am to 10:30 am

This demonstration is designed to point out some of the
differences between PFS Professional File 1.0 and 2.0. Some of
the features to be covered are speed differences, menu changes,
indexing, data formatting, data validation, lookups and formulas
and Autopilot. We will also discuss conversion to PFS 2.0.

R:BASE COMPILER DEMONSTRATION: presented by Jeff Holm of the
Information Center

DATE: August 21, 1989
TIME: 8:30 am to 10:30 am

This demonstration will show how to compile an R:Base application
using the new R:Base compiler. Topics to be discussed include
application changes which may be necessary in order to compile,
advantages of using the compiler, and some limitations of the
compiler. This class is intended for persons who currently have
applications written in R:Base who may want to take advantage of
some compiler advantages such as increased processing speed, and
the ability to distribute executable code to machines which do
not have R:Base.

WORDPERFECT 5.0 TIPS AND TRICKS: presented by Gale Kramlick and
Melanie Coughlin of the Information Center.

DATE: August 23, 1989
TIME: 9:00 am to 11:00 am

This free session demonstrates tips on editing, block, move,
tabs, keyboard, merging and graphics. Bring a blank formatted
disk to the session to receive a copy of some timesaving Word-
Perfect macros and style sheets.

Data Network Classes

INTRODUCTION TO JCL: presented by the staff of the Information Center.

DATE:	August 7 through August 11, 1989
TIME:	8:30 am to 4:30 pm <u>each day</u>
PREREQUISITE:	Basic Terminal Skills

This course is designed for programmers, I/O controllers, operations technicians or users of report-writing software who submit jobs on ISD's system.

This course will cover:
    Syntax and coding of IBM Job Control Language (JCL)
    MVS operating system
    How to handle datasets and device assignments
    Some of the IBM utilities
    Troubleshooting and interpreting system messages
    Hands-on experience writing and executing JCL

INTRODUCTION TO CULPRIT PROGRAMMING: presented by Jeff Holm of the Information Center.

DATE:	September 11 through 13, 1989
TIME:	8:30 am to 4:30 pm <u>each day</u>
PREREQUISITE:	Programming experience, Basic Terminal Skills (SPF), JCL helpful

This 3-day class will cover the introduction and basic areas of CULPRIT. The class has been re-structured from prior classes, with emphasis on lecture and student exercises, and will be directed toward end users and programmers. The class will cover the basic aspects of generating reports from standard files, and will not go into more advanced topics such as database accesses, match files, etc. Topics covered in the class will include:

Generating a Basic Report from Standard Files; Enhancing and formatting the Report; Generating Multiple Reports; Sequencing Report Output; Selective Processing; Programming Logic; Performing Arithmetic Operations; Directing Processing Flow; Generating Total Lines; Generating Subtotals and Sort Levels; and Selective Printing of Output Lines.

Manuals <u>will</u> be available during class. After the class, orders will be taken if anyone wants to purchase a set. Prices are as follows: Culprit Reference Manual- $40; Culprit User's Guide - $40; Culprit Error Codes and Messages - $45; Culprit Quick Reference - $15

BEGINNING MICROCOMPUTER SKILLS: presented by the staff of the Information Center or the Computer School.

DATE: August 2, 1989
TIME: 8:15 am to 4:30 pm
PREREQUISITE: None

This course will give participants brief hands-on experience with microcomputers. Topics to be covered:

>   The machine
>   The operating system
>   Word processing
>   Spreadsheets and graphics
>   File management
>   Communications

All class time will be spent using microcomputers and software. The participant will learn what microcomputers can do and how to approach them with a positive attitude. This course or its equivalent is a prerequisite for other microcomputer courses.

FUNDAMENTALS OF DOS: presented by Gale Kramlick or Melanie Coughlin of the Information Center

DATE: September 25, 1989
TIME: 8:30 am to 4:30 pm
PREREQUISITE: Beginning Micro Skills and/or 3 months micro
                   experience

This class is intended for microcomputer users who need to know more about controlling their microcomputer through its operating system. Programming experience is NOT required.

Topics to be covered include:
>   What is DOS? Why is it necessary to know about it?
>   DOS names for peripherals
>   File naming
>   Special files like CONFIG.SYS
>   Internal commands - DIR, ERASE, RENAME, TYPE, COPY and
>   their variations
>   External commands - FORMAT, SYS, DISKCOPY, CHKDSK, MODE
>   How to interpret batch files
>   Backup procedures

INTRODUCTION TO WORDPERFECT 4.2: presented by the staff of the Information Center or the Computer School.

DATE: August 28, 29, and 30, 1989
TIME: 8:30 am to 12:00 noon <u>each day</u>
PREREQUISITE: Beginning Microcomputer Skills

This course is intended for anyone interested in learning the basics of WordPerfect. This class will concentrate on text creation, use of function keys, editing, formatting, printing, filing, and retrieving documents. Headers, footers, page numbering, merging documents, macro creation, block functions, search and replace and use of the spell checker are also covered. An advanced class for WordPerfect is also available.

INTRODUCTION TO WORDPERFECT 5.0: presented by the staff of the Information Center or the Computer School.

DATE: July 20 and 21, 1989
                   August 21, 22, and 23, 1989
                   September 18 and 19, 1989
TIME: 8:30 am to 3:30 pm on <u>July 20</u>
                   8:30 am to 12:00 noon on <u>July 21</u>
                   8:30 am to 12:00 noon on <u>Aug. 21, 22 & 23</u>
                   8:30 am to 3:30 pm on <u>Sept. 18</u>
                   8:30 am to 12:00 noon on <u>Sept. 19</u>
PREREQUISITE: Beginning Microcomputer Skills

This class is designed for beginning users of WordPerfect 5.0. Experience with WordPerfect 4.2 is not necessary. The class will take the participants through the fundamentals of creating, printing, and editing documents. The new Setup feature will be discussed. Formatting documents as they are created and after creation will be covered. Some of the time saving features such as spell check, merges, block functions and macros will also be covered.

ADVANCED FEATURES OF WORDPERFECT 5.0: presented by Gale Kramlick or Melanie Coughlin of the Information Center.

DATE:	July 17 and 18, 1989
	August 16 and 17, 1989
TIME:	8:30 am to 3:30 pm - first day
	8:30 am to 12:00 noon - second day
PREREQUISITE:	Beginning Microcomputer Skills
	Introduction to WordPerfect 5.0

For those already using WordPerfect 5.0, the advanced class will cover footnotes, column generation, sorting capabilities, dual document editing, changing fonts within a document, creating style sheets and master documents, keyboard layout, compose and graphics.

Spreadsheet Classes

INTRODUCTION TO LOTUS 1-2-3: presented by the staff of the Information Center or the Computer School.

DATE:	July 17, 18 and 19, 1989
	August 3 and 4, 1989
	September 6, 7 and 8, 1989
TIME:	8:30 am to 12:00 noon on July 17, 18 & 19
	8:30 am to 3:30 pm on Aug. 3
	8:30 am to 12:00 noon on Aug. 4
	8:30 am to 12:00 noon on Sept. 6, 7 & 8
PREREQUISITE:	Beginning Microcomputer Skills

This course is designed for anyone with little or no previous 1-2-3 or microcomputing experience.

The class will concentrate on 1-2-3 spreadsheet design and commands and the creation of graphics. Printing spreadsheets and graphs is also covered. The more advanced features such as macro programming and database commands are covered in other courses.

Class format consists of lecture and hands-on practice followed by lab time on actual agency spreadsheets for further experience.

ADVANCED FEATURES OF LOTUS 1-2-3: Presented by Brett McAlister
of the Information Center.

DATE:	July 31 and August 1, 1989
	August 24 and 25, 1989
TIME:	8:30 am to 4:30 pm - first day
	8:30 am to 12:00 noon - second day
PREREQUISITE:	Beginning Microcomputer Skills and Introduction
	to Lotus 1-2-3

This course is designed for anyone who is using 1-2-3 to create
spreadsheets for all but the simplest applications. Features
covered include: using dates and times within 1-2-3, hiding
and/or protecting parts of the spreadsheet, extracting from and
combining into spreadsheets, using named ranges, copying values
only, advanced print and graph options, additional @ functions,
and many other items not covered in Beginning Lotus 1-2-3.

Class consists of lecture, hands-on practice, lab work or
question and answer period if time permits.

Database Classes

MICRO DATABASE CONCEPTS AND DESIGN: presented by Brett McAlister
of the Information Center

DATE:	September 20, 1989
TIME:	8:30 am to 4:30 pm
PREREQUISITE:	Beginning Microcomputer Skills

This class is designed to give participants a primary under-
standing of what a relational database is and how it compares to
other products like Lotus 1-2-3 and PFS:Professional File. The
class teaches database design techniques and is a prerequisite
for other database classes offered by the Information Center.

INTRODUCTION TO dBASE III+: presented by staff of the Computer
School.

DATE:	September 21 and 22, 1989
TIME:	8:30 am to 4:30 pm on <u>first day</u>
	8:30 am to 12:00 noon on <u>second day</u>
PREREQUISITE:	Beginning Microcomputer Skills

This class is intended for beginning dBase users and will cover
the fundamentals of database construction. A special emphasis
will be placed upon prompt commands and simple report generation.
The class will also include an introduction to The Assistant.

BEGINNING R:BASE:: presented by Brett McAlister of the Information Center

DATE:	September 28 and 29, 1989
TIME:	8:30 am to 4:30 pm <u>each day</u>
PREREQUISITE:	Beginning Microcomputer Skills **and** <u>Micro Database Concepts and Design</u>

This class will give participants hands-on experience creating a database and developing a simple application with R:Base System V. The application will include database updates, queries, and simple forms and reports generation. "Prompt by Example" and "Express" will be used.

Communication and Network Classes

INTRODUCTION TO NOVELL NETWORKS: presented by Teri Lundberg of the Information Center

DATE:	August 28, 1989
TIME:	8:30 am to 12:00 noon
PREREQUISITE:	Beginning Microcomputer Skills and FIVE months microcomputer experience

This course is designed for <u>users</u> of **Novell** Networks. Topics covered include:

> The definition of a local area network with emphasis on a Token Ring Network
> Logging on to the network
> Directory structure
> Network security
> Supervisor functions
> Drive mappings
> Summary of basic Novell commands

NOTE: This class is <u>not</u> intended for network system administrators or network programming staff. Contact Teri Lundberg at 444-3994 if you have any questions.

ISD CLASS ENROLLMENT APPLICATION
COMPLETE THIS APPLICATION __IN FULL__ AND
RETURN IT TO THE INFORMATION CENTER BUREAU
__PRIOR__ TO THE FIRST DAY OF CLASS

COURSE DATA

Course Requested: _____

Date Offered: _____

STUDENT DATA

Name: _____

Soc Sec Nbr (for P/P/P): _____

Agency & Division: _____

Mailing Address: _____

_____

Phone: _____

How have you met the required prerequisites for this
course? Explain giving the class(es) taken, Information
Center tutorial(s) completed, and/or experience.

_____

_____

BILLING INFORMATION/AUTHORIZATION

Are you an ISD subscribing agency: _____

ISD Billing Number (5 digits): _____

Authorized Signature: _____

**FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS CANCELLA-
TIONS ARE MADE THREE DAYS BEFORE THE DATE FOR EACH CLASS.**

DEPARTMENT OF ADMINISTRATION
INFORMATION SERVICES DIVISION
INFORMATION CENTER BUREAU
RM 24, MITCHELL BLDG
HELENA, MT 59620